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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,705	10/11/2006	Tetsuya Saito	03500.018190	1862

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NEW YORK, NY 10112

EXAMINER

NGUYEN, LAM S

ART UNIT	PAPER NUMBER
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2853

MAIL DATE	DELIVERY MODE
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10/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/559,705

Applicant(s)

SAITO ET AL.

Examiner

LAM S. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-16 is/are rejected:
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/7/05, 3/26/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

In response to the restriction requirement, the applicant elected claims 1-7 and 11-16 for further examination. As a result, claims 8-10 and 17-19 are withdrawn from consideration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-7, 11-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Nunokawa et al. (US 7159960)

Regarding to claims 1, 11:

Nunokawa et al. discloses a recording apparatus for recording an image on a recording medium by using a recording head which can form dots with a plurality of dot diameters at a changed ejection frequency (*FIG. 20: Small dots and medium dots*), the recording apparatus comprising:

deciding means for deciding an area where the recording head ejects the ink in a recording area including the recording medium (*FIG. 20: The recording area is whether the area As, Ab1, Ab2, or Aa*); and

recording controlling means for making change so as to decrease ejection-

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frequency of the dot formed by the relatively smaller dot diameter in the plurality of dot diameters, when the deciding means decides that the recording head ejects the ink in the area near an end portion of the recording medium (*Fig. 20: The ejection frequency of the small dots formed in the areas As and Ab1 is 24 and is decreased to 12 in the area Ab2*).

Regarding to claims 2, 12: wherein the recording controlling means makes the change so as to increase the ejection frequency of the dot formed by a relatively larger dot diameter in the plurality of dot diameters (*FIG. 20: The ejection frequency of the medium dots is increased from 3 to 17*).

Regarding to claims 3, 13: in which the recording controlling means makes the change so as to decrease the ejection frequency of the dot formed by the dot diameter smaller than that of the recording area in a central portion of the recording medium (*Fig. 20: The ejection frequency of the small dots formed in the central areas As and Ab1 is 24 and is decreased to 12 in the end area Ab2*).

Regarding to claim 4: in which the area near the end portion of the recording medium is the area in which a conveying state of the recording medium is unstable (*FIG. 20: The area Ab2*).

Regarding to claims 5, 14: in which the recording controlling means changes the ejection frequency so that the dot having the relatively smaller dot diameter is not ejected, when the deciding means decides that the recording head ejects the ink in the recording area outside the recording medium (*FIG. 20: The ejection frequency of the small dots in the area Aa is zero*).

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Regarding to claims 6-7, 15-16: in which the recording controlling means gradually changes in a step manner the ejection frequency when the recording controlling means changes the ejection frequency of the dot having a predetermined diameter (*FIG. 20*).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S. NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LAM SON NGUYEN